

REMARKS

In response to the above identified Office Action, the Applicants respectfully request reconsideration and review in view of the above amendments and the following remarks. The Applicants amend claims 8, 9 and 19. The Applicants do not add or cancel any claims. Accordingly, claims 1-28 remain pending in the application.

I. Objections to the Title

The Examiner objects to the title as allegedly not being descriptive. However, the Examiner has not explained in what fashion the current title fails to describe the current invention. The Applicants believe that the invention as claimed is described by the title of “Flag Value Renaming.” If the Examiner maintains this rejection, the Applicants respectfully request that the Examiner clarify the basis for this rejection. Specifically, Applicants request clarification as to what elements of the claimed invention should be reflected in the title.

II. Objections to the Drawings

The Examiner has objected to Fig. 4. The Applicants have amended Fig. 4 as suggested by the Examiner to re-label reference number 415 as execution logic. Accordingly, reconsideration and withdrawal of the objection to the figures are requested.

III. Claim Objections

The Examiner has objected to claims 8, 9 and 19 for including informalities. The Examiner has objected to claim 8 as being inconsistent with that which is claimed in claim 7. Applicants have amended claim 8 to correct the informality noted by the Examiner.

Claims 9 and 19 have been objected to for using the article “an” improperly. Applicants have amended these claims as suggested by the Examiner. Accordingly, reconsideration and withdrawal of the objections to claims 8, 9 and 19 are requested.

IV. Claims Rejected Under 35 U.S.C. § 102

Claims 1-3, 6-9 and 13-15 stand rejected under 35 U.S.C. § 102 as allegedly being anticipated by U.S. Patent No. 5,632,023 issued to White, et al. (hereinafter “White”). Applicants respectfully disagree for the following reasons.

To establish anticipation, the Examiner must show that the cited reference teaches each element of a claim. In regard to claim 1, this claim includes the elements of “setting a flag for processor via a first instruction, the first instruction being either a direct update instruction or an indirect update instruction,” “if the setting of the flag is a direct update instruction, executing a second instruction that reads the flag prior the completion of the first instruction” and “if the setting of the flag is by an indirect update instruction, delaying the second instruction until after completion of the first instruction.” The Examiner relies on Fig. 11 of White for teaching these elements of claim 1. However, the Examiner has misconstrued the teachings of this figure. The Examiner has equated the resolved dependency and unresolved dependency paths flowing from block 520 as teaching a direct update instruction and an indirect update instruction, respectively. However, the test for dependency in block 520 is unrelated to the execution of either a direct update instruction or an indirect update instruction. Rather, this dependency check is made in the context of the execution of a branch instruction that may have dependencies on specific flag input requirements. See block 510 and col. 33, lines 10-15 and generally col. 33, line 10 through col. 35, line 23 of White.

Further, Applicants have been unable to discern any part of the cited reference that teaches determining if flag is set by a direct update instruction or an indirect update instruction. Applicants believe that White does not teach such a test of an instruction type and thus does not teach flag renaming and handling based on the detected type of the instruction. Therefore, the Examiner has failed to show that White teaches each of the elements of claim 1. If the Examiner maintains this rejection, the Applicants respectfully request that the Examiner identify those aspects of White that teach determining the instruction type as recited in claim 1. Accordingly, reconsideration and withdrawal of the anticipation rejection of claim 1 are requested.

In regard to claims 2, 3, and 6-8 these claims depend from independent claim 1 and incorporate the limitations thereof. Thus, at least for the reasons mentioned above at least in regard to independent claim 1, these claims are not anticipated by White. Accordingly, reconsideration and withdrawal of the anticipation rejection of these claims are requested.

In regard to claim 9, this claim includes elements similar to those of claim 1 and the Examiner again has relied on an erroneous understanding of the cited reference in asserting the elements of this claim are taught by White. The Examiner cites col. 30, lines 12-37 as teaching “the value of the flag register being set by one of a plurality processes, the processes including directly setting the flag register by a first instruction or setting the flag register to a data value obtained by a second instruction.” It is unclear to the Applicants how any aspect of this cited section relates to the elements of the claim. The Examiner’s comments seem unrelated to the cited section of White. The Examiner states “[t]he Resolved Dependency instructions set the flag register of table 4. Unresolved Dependency instructions will set a flag register in a table upon completion of execution.” It is unclear what table the Examiner is referring to in Fig. 4. Fig. 4 includes a diagram of a reorder buffer array. There is no mention of any “resolve

dependency instruction” or “unresolved dependency instructions.” Further, Fig. 4 seems to show that all output from the reorder buffer passes through the retirement logic 325 before being written to register files. This would seem to indicate that a flag register is not altered until instructions are retired. Thus, the instructions cannot be executed that depend on registered data prior to the retirement of other instructions. Therefore, for these reasons, in addition to those mentioned above in regard to independent claim 1, the Examiner has failed to establish that White teaches each of the elements of claim 9. Accordingly, reconsideration and withdrawal of the anticipation rejection of claim 9 are requested.

Claims 13-15 depend from independent claim 9 and incorporate the limitations thereof. Thus, at least for the reasons mentioned above in regard to independent claim 9 these claims are not anticipated by White. Accordingly, reconsideration and withdrawal of the anticipation rejection of these claims are requested.

V. Claims Rejected Under 35 U.S.C. § 103

Claims 16-19 and 23-28 stand rejected under 35 U.S.C. § 103 as being allegedly unpatentable over White.

Claim 19 includes many elements similar to those of claim 9. Further, the Examiner offers the same basis for rejecting these claims as presented for claim 9. Thus, at least for the reasons mentioned above in regard to independent claim 9, White fails to teach each of the elements of claim 19. Accordingly, reconsideration and withdrawal of the obviousness rejection of claim 19 are requested.

Claims 16-18 and 23-28 depend from independent claims 9 and 19 and incorporate the limitations thereof. Thus, at least for the reasons mentioned above in regard to independent claims 9 and 19, White fails to teach or suggest each of the elements of these claims.

Accordingly, reconsideration and withdrawal of the obviousness rejection of these claims are requested.

Claims 4, 5, 10-12, and 20-22 stand rejected under 35 U.S.C. § 103 as allegedly being unpatentable over White in view of “Computer Architecture a Quantitative Approach” Patterson, D.A., Hennessy, J.L, 2nd Ed, 1996 Morgan Kauffmann Publishers, Inc. Pages 242-247, (hereinafter “Hennessy”).

To establish a *prima facie* case of obviousness, the Examiner must show the cited references teach or suggest each or the elements of a claim. In regard to claims 4, 5, 10-12 and 20-22 these claims depend from independent claims 1, 9 and 19 and incorporate the limitations thereof. Thus, at least for the reasons mentioned above in regard to the independent claims, White fails to teach or suggest each of the elements of these claims. Further, Hennessy does not cure these defects of White. The Examiner has not relied upon and the Applicants have been unable to discern any part of Hennessy that teaches or suggests the direct update instruction and indirect update instruction handling recited in claims 1, 9 and 19. Thus, White in view of Hennessy does not teach or suggest each of the elements of these claims. Accordingly, reconsideration and withdrawal of the obviousness rejection of these claims are requested.

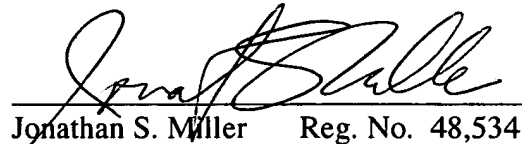
CONCLUSION

In view of the foregoing, it is believed that all claims now pending, namely claims 1-28, patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207 3800.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

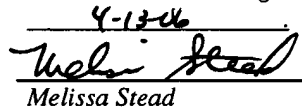
Dated: 4/13, 2006


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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment; Commissioner of Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450:

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Melissa Stead Date

AMENDMENTS TO THE DRAWINGS

Applicants submit herewith on a separate sheet of paper a replacement Figure 4. The Figure has been amended to replace the term “front end” with “execution logic.” Entry is requested.